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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/698,885	10/31/2003	Debargha Mukherjee	100201426-1	2006

22879 7590 06/04/2010
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EXAMINER

ANYIKIRE, CHIKAODILI E

ART UNIT	PAPER NUMBER
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2621

NOTIFICATION DATE	DELIVERY MODE
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06/04/2010

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/698,885	Applicant(s) MUKHERJEE, DEBARGHA	
	Examiner CHIKAODILI E. ANYIKIRE	Art Unit 2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 3/16/2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 48-78 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 48-78 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This application is responsive to application number (10698885) filed on October 31, 2003. Claims 48-78 are pending and have been examined.

Response to Arguments

2. Applicant's arguments with respect to claims 48-78 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 48-60 rejected under 35 U.S.C. 102(b) as being anticipated by Chaddha (US 6,233,017).

As per **claim 48**, Chaddha discloses a method comprising encoding on computer-readable media a video stream so that the encoded video stream includes a sequence of temporal layers including a first temporal layer in which all frames are A-frames, each A-frame being an I-frame or a P-frame, and plural succeeding temporal layers in which all frames are B-frames, said temporal layers being composed and arranged so that a temporal resolution can be selected as a function of a whole number of said succeeding layers truncated from an end of said sequence (Figs 4 and 9;

column 9 lines 60 – 64 and column 14 lines 31 -53; Chaddha teaches that the frames are initially arranged in a sequential format and the split into temporal layers 1, 2, and 3 which suggests to the examiner that the temporal layers are sequential for the purposes of performing inter-frame compression accurately).

As per **claim 49**, Chaddha discloses a method as recited in claim 48 wherein no two temporally adjacent frames are in the same one of said temporal layers (Fig 9; column 14 lines 31 -53).

As per **claim 50**, Chaddha discloses a method as recited in claim 48 wherein said encoded video stream includes a table of contents indicating an offset for each frame included in said encoded video stream (column 13 lines 39 – 50).

As per **claim 51**, Chaddha discloses a method as recited in claim 48 wherein:
said encoding involves wavelet encoding; and
for each of said temporal layers, data is arranged in spatial layers so that a spatial resolution can be selected by truncating a whole number of spatial layers from respective ends of at least some of said temporal layers, said B-frames being wavelet encoded (column 15 lines 15 – 30).

As per **claim 52**, Chaddha discloses a method as recited in claim 51 wherein, for each of said spatial layers, data is arranged in signal-to-noise layers so that a signal-to-noise ratio can be selected by truncating a whole number of said signal-to-noise layers from respective ends of at least some of said spatial layers (column 7 lines 40 – 45).

As per **claim 53**, Chaddha discloses a method as recited in claim 52 wherein said encoded video stream is of one of plural such streams collectively arranged in a

sequence interactivity layers so that a level of interactivity can be selected by truncating a whole number of said interactivity layers from said sequence of interactivity layers (column 1 lines 20 – 30 and column 7 lines 40 -45).

Regarding **claim 54**, arguments analogous to those presented for claim 48 are applicable for claim 54.

Regarding **claim 55**, arguments analogous to those presented for claim 49 are applicable for claim 55

Regarding **claim 56**, arguments analogous to those presented for claim 49 are applicable for claim 56.

Regarding **claim 57**, arguments analogous to those presented for claim 50 are applicable for claim 57.

Regarding **claim 58**, arguments analogous to those presented for claim 51 are applicable for claim 58.

Regarding **claim 59**, arguments analogous to those presented for claim 52 are applicable for claim 59.

Regarding **claim 60**, arguments analogous to those presented for claim 53 are applicable for claim 60.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. Claims 61-78 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chaddha (US 6,233,017) in view of Song (US 2003/0031380).

Regarding **claim 61**, arguments analogous to those presented for claim 49 are applicable for claim 61.

However, Chaddha does not explicitly teach further, a method comprising:

predecoding said A-frames; and

in response to a request for a frame,

if the requested frame is an A-frame, looking up an offset for said A-frame in said table of contents and accessing said A-frame at said offset, and

if the requested frame is a B-frame, looking up offsets for said B-frame in said table of contents and decoding said B-frame in part as a function of pre-decoded A-frame data.

In the same field of endeavor, Song teaches further, a method comprising:

predecoding said A-frames; and

in response to a request for a frame,

if the requested frame is an A-frame, looking up an offset for said A-frame in said table of contents and accessing said A-frame at said offset, and

if the requested frame is a B-frame, looking up offsets for said B-frame in said table of contents and decoding said B-frame in part as a function of pre-decoded A-frame data predecoding a compressed video stream including A-frames and B-frames so that it includes pre-decoded A-frames and undecoded B-frames, said A-frames being anchor frames and including either only I-frames or only I-frames and P-frames (Fig 11 step 215; paragraph [0104] lines 9-11); and

after said predecoding, in response to a random-access frame request for a target frame (Fig 11 element 203; paragraph [0104] line 13),

in the event said target frame is an A frame, displaying said frame without further decoding as a function of another frame or frames (paragraph [0087] and [0090] lines 6-11; Song explains that a pre-decode is done of the anchor frames so that decoding is not needed later), and

in the event said target frame is a B frame, decoding said frame as a function of said A-frames to yield a decoded B frame and displaying said decoded B frame (paragraph [0094] lines 14-15).

Regarding **claim 62**, arguments analogous to those presented for claim 50 are applicable for claim 62.

Regarding **claim 63**, arguments analogous to those presented for claim 48 are applicable for claim 63.

Regarding **claim 64**, arguments analogous to those presented for claim 51 applicable for claim 64.

Regarding **claim 65**, arguments analogous to those presented for claim 52 are applicable for claim 65.

Regarding **claim 66**, arguments analogous to those presented for claim 53 are applicable for claim 66.

Regarding **claim 67**, arguments analogous to those presented for claim 61 are applicable for claim 67.

Regarding **claim 68**, arguments analogous to those presented for claim 48 are applicable for claim 68.

Regarding **claim 69**, arguments analogous to those presented for claim 51 are applicable for claim 69.

Regarding **claim 70**, arguments analogous to those presented for claim 52 are applicable for claim 70.

Regarding **claim 71**, arguments analogous to those presented for claim 53 are applicable for claim 71.

Regarding **claim 72**, arguments analogous to those presented for claim 48 are applicable for claim 72.

As per **claim 73**, Chaddha discloses a computer product as recited in claim 72 wherein said A-frames are uncompressed and said B-frames are compressed (column 14 lines 32 – 40).

Regarding **claim 74**, arguments analogous to those presented for claim 50 are applicable for claim 74.

Regarding **claim 75**, arguments analogous to those presented for claim 49 are applicable for claim 75.

Regarding **claim 76**, arguments analogous to those presented for claim 51 are applicable for claim 76.

Regarding **claim 77**, arguments analogous to those presented for claim 52 are applicable for claim 77.

Regarding **claim 78**, arguments analogous to those presented for claim 53 are applicable for claim 78.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHIKAODILI E. ANYIKIRE whose telephone number is (571)270-1445. The examiner can normally be reached on Monday to Friday, 7:30 am to 5 pm, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha D. Banks-Harold can be reached on (571) 272 - 7905. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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